Amendments to the Abstract

Please amend the abstract as indicated on the following page.

ABSTRACT OF THE DISCLOSURE

The present invention discloses a method and device for ordering memory operation instructions in an optimizing compiler. ~~The optimizations disclosed target processors~~ for a processor that can potentially enter a stall state if ~~a memory load operation instruction is a cache miss or if~~ a memory queue is full. ~~Disclosed is a new optimization method that~~ The method uses a dependency graph coupled with one or more memory queues. The dependency graph is used to show the dependency relationships between ~~the~~ instructions in a program being compiled. After creating the dependency graph, the ready nodes are identified. ~~At the same time at least one queue having a maximum desirable number of elements derived from a target processor is made available. Some dependency~~ Dependency graph nodes that correspond to memory operations. ~~Those nodes that do~~ may have the effect of adding an element to the memory queue or removing one or more elements from the memory queue. The ideal situation is to keep the memory queue as full as possible without exceeding the maximum desirable number of elements, ~~which corresponds to~~ by scheduling memory operations to ~~prevent~~ maximize the parallelism of memory operations while avoiding stalls on the target processor.